HYDROLOGY

Precipitation

Average precipitation for the region encompassing the Lamine River basin is 38.5 inches (Waite et al. 1988). The greatest amount of precipitation falls in May and June (MDNR 1986). Average annual runoff for the region is 10 inches.

USGS Gaging Stations

Currently there is one U.S. Geological Survey (USGS) gaging stations operating in the Lamine River Basin. A stage recorder is located on the Lamine River at State Highway A bridge near Otterville and its period of record is from 1987 to the present. Subsequent to a major fish kill in 1989, a crest station was installed on Muddy Creek at the Highway H bridge north of Georgetown.

Permanent/Intermittent Streams

While most of the permanent flow in the Lamine River Basin is represented by the mainstem Lamine River, Flat Creek, Richland Creek, Muddy Creek and Heath's Creek, there are 64 third order or larger streams in the basin. Many of these streams have permanently flowing reaches during years of normal precipitation. Due to the complexity of the watershed, stream intermittency is best illustrated by USGS 7.5 minute topographic maps. A listing of 7.5 minute quad maps covering the mainstem and longest reach of each stream of fourth or larger order is provided (<u>Table 4</u>) to expedite access to information about flow as well as other stream characteristics.

Hydrologic Characteristics

No major dam or hydropower projects exist in the Lamine River basin at this time. Approximately 20 lakes over two acres in surface area exist in the basin (MDNR 1984). Spring Fork Lake, a water supply reservoir for Sedalia, has a surface area of 178 acres and is the largest lake in the basin. Manito Lake, 77 acres, is the only other large lake in the basin. Manito Lake is located 4.5 miles south of Tipton at the Manito Lake Conservation Area and was built for recreation.

Table 4. USGS 7.5 minute quadrangle maps covering mainstem and longest arm of fourth order and above streams in the Lamine River Basin. Maps are listed in order from mouth of stream to headwaters.

Stream	Maps
Lamine River (confluence with Blackwater river to confluence of Richland and Flat Creeks)	Pilot Grove North, Nelson, Clifton City, Pilot Grove South, Otterville East
Brush Creek	Pilot Grove North, Pilot Grove South
Heath's Creek	Nelson, Longwood, Houstonia, Hughesville
Marlin Creek	Nelson, Clifton City
Clear Creek	Nelson, Clifton City, Pilot Grove South
Muddy Creek	Clifton City, Beaman, Hughesville, Sedalia West, Green Ridge North, Burtville, Windsor
Shaver Creek	Clifton City, Otterville West, Sedalia East
Sewer Branch	Beaman, Sedalia East
Little Muddy Creek	Hughesville, La Monte
Coon Creek	Sedalia West
Otter Creek	Otterville East, Tipton
Richland Creek	Otterville East, Florence, Stover
Gabriel Creek	Otterville East, Florence, Pyromont

Little Richmond Creek	Otterville East, Florence, Fortuna
Messer Creek	Otterville East, Tipton
Middle Richland Creek	Florence, Stover
Flat Creek	Otterville East, Otterville West, Sedalia East, Sedalia West, Ionia, Green Ridge South, Lincoln
Haw Creek	Otterville West, Pyromont, Crockerville
Lake Creek	Otterville West, Pyromont, Bahner, Cole Camp
Walnut Creek	Sedalia East, Bahner
Spring Fork	Sedalia East, Bahner